

-2-

Amendments to the Claims:

This claim listing will replace all prior versions and listings of claims in the application:

Claim Listing:

1. (currently amended) A method of identifying an upper intestinal polyp or a colonic polyp comprising the step steps of:
 - a) ~~obtaining a nucleic acid sample derived from intestinal tissue;~~ and
 - b) determining an expression profile, from expression products in a nucleic acid sample derived from intestinal tissue, of at least three informative nucleic acid molecules having increased expression in an upper intestinal polyp or a colonic polyp relative to a control,wherein increased expression of said nucleic acid ~~molecules~~ molecules in said sample is indicative of an upper intestinal polyp or a colonic polyp.
2. (canceled)
- 2 ~~3~~. (previously presented) The method according to Claim 1, wherein the nucleic acid sample derived from intestinal tissue is derived from upper intestinal tissue or colonic tissue.
- 3 ~~4~~. (currently amended) The method according to Claim 1, wherein the expression products ~~are~~ product is DNA.
- A ~~5~~. (currently amended) The method according to Claim 1, wherein the expression products ~~are~~ product is mRNA.
- 5 ~~6~~. (previously presented) The method according to Claim ³~~4~~, wherein the expression profile is determined utilizing specific hybridization probes.

09/916,179

-3-

- 6 ~~7~~ (previously presented) The method according to Claim ~~8~~⁴, wherein the expression profile is determined utilizing specific hybridization probes.
- 7 ~~8~~ (previously presented) The method according to Claim ~~9~~⁵, wherein the expression profile is determined utilizing oligonucleotide microarrays.
- 8 ~~9~~ (previously presented) The method according to Claim ~~10~~⁶, wherein the expression profile is determined using oligonucleotide microarrays.
- 9 ~~10~~ (currently amended) The method according to Claim 1, wherein the expression products are polypeptides product is a polypeptide.
- 10 ~~11~~ (previously presented) The method according to Claim ~~12~~⁹, wherein the expression profile is determined utilizing antibodies.
- 11 ~~12~~ (currently amended) The method according to Claim 1, wherein said one or more informative nucleic acid molecules are is selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.
- 12 ~~13~~ (currently amended) The method according to Claim 1, wherein said one or more informative nucleic acid molecules are is selected from the group consisting of the nucleic acid molecules in Figures 1A-1U.
- 13 ~~14~~ (currently amended) A method of identifying an upper intestinal polyp or a colonic polyp comprising the steps of:
- a) obtaining a polypeptide sample derived from intestinal tissue; and
 - b) determining an expression profile, from expression products in a polypeptide sample derived from intestinal tissue, of at least three informative nucleic acid

09/916,179

-4-

molecules having increased expression in an upper intestinal polyp or a colonic polyp relative to a control, ~~said expression products being polypeptides;~~ wherein increased expression of said ~~nucleic acid molecules~~ expression products in said sample is indicative of an upper intestinal polyp or a colonic polyp.

15. (canceled)

~~14~~ ¹³ ~~16~~ (previously presented) The method according to Claim ~~14~~, wherein the polypeptide sample derived from intestinal tissue is derived from upper intestinal tissue or colonic tissue.

~~15~~ ¹³ ~~17~~ (previously presented) The method according to Claim ~~14~~, wherein the expression profile is determined utilizing antibodies.

~~16~~ ¹³ ~~18~~ (currently amended) The method according to Claim ~~14~~, wherein said one or more informative nucleic acid molecules are is selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.

~~17~~ ¹³ ~~19~~ (currently amended) The method according to Claim ~~14~~, wherein said one or more informative nucleic acid molecules are is selected from the group consisting of the nucleic acid molecules genes in Figures 1A-1J.

~~18~~ ²⁰ (currently amended) A method of identifying an intestinal polyp comprising the step steps of:

- a) ~~obtaining a nucleic acid sample derived from intestinal tissue;~~ and
- b) determining an expression profile, from an expression product in a nucleic acid sample derived from intestinal tissue, of at least one informative nucleic acid molecule having decreased expression in an intestinal polyp relative to a control,

09/916,170

-5-

wherein decreased expression of said nucleic acid molecule in said sample is indicative of an intestinal polyp.

- ¹⁹~~21~~ (previously presented) The method according to Claim ¹⁸~~20~~, wherein the intestinal polyp is an upper intestinal polyp or a colonic polyp.
- ²⁰~~22~~ (previously presented) The method according to Claim ¹⁸~~20~~, wherein the nucleic acid sample derived from intestinal tissue is derived from upper intestinal tissue or colonic tissue.
- ²¹~~23~~ (currently amended) The method according to Claim ¹⁸~~20~~, wherein the gene expression product is DNA.
- ²²~~24~~ (currently amended) The method according to Claim ¹⁸~~20~~, wherein the gene expression product is mRNA.
- ²³~~25~~ (currently amended) The method according to Claim ²¹~~23~~, wherein the gene expression profile is determined utilizing specific hybridization probes.
- ²⁴~~26~~ (currently amended) The method according to Claim ²²~~24~~, wherein the gene expression profile is determined utilizing specific hybridization probes.
- ²⁵~~27~~ (currently amended) The method according to Claim ²³~~25~~, wherein the gene expression profile is determined utilizing oligonucleotide microarrays.
- ²⁶~~28~~ (currently amended) The method according to Claim ²⁴~~26~~, wherein the gene expression profile is determined using oligonucleotide microarrays.
- ²⁷~~29~~ (currently amended) The method according to Claim ¹⁸~~20~~, wherein the gene expression product is a polypeptide.

09/916,179

-6-

²⁸~~30~~ (currently amended) The method according to Claim ²⁷~~29~~, wherein the gene expression profile is determined utilizing antibodies.

²⁹~~31~~ (currently amended) The method according to Claim ¹⁸~~20~~, wherein said ~~one or more~~ informative nucleic acid molecule genes is selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.

³⁰~~32~~ (currently amended) The method according to Claim ¹⁸~~20~~, wherein said ~~one or more~~ informative nucleic acid molecule genes is selected from the group consisting of the nucleic acid molecules genes in Figures 1A-1U.

³¹~~33~~ (currently amended) A method of identifying an intestinal polyp comprising the ~~step~~ steps of:

- a) obtaining a polypeptide sample derived from intestinal tissue; and
- b) determining an expression profile, from an expression product in a polypeptide sample derived from intestinal tissue, of at least one informative nucleic acid molecule having decreased expression in an intestinal polyp relative to a control, said expression product being a polypeptide;

wherein decreased expression of said nucleic acid molecule expression product in said sample is indicative of an intestinal polyp.

³²~~34~~ (previously presented) The method according to Claim ³¹~~33~~, wherein the intestinal polyp is an upper intestinal polyp or a colonic polyp.

³³~~35~~ (previously presented) The method according to Claim ³¹~~33~~, wherein the polypeptide sample derived from intestinal tissue is derived from upper intestinal tissue or colonic tissue.

09/016,179

-7-

~~34~~
~~36~~

31

(currently amended) The method according to Claim ~~33~~, wherein the gene expression profile is determined utilizing antibodies.

~~35~~
~~37~~

31

(currently amended) The method according to Claim ~~33~~, wherein said one or more informative nucleic acid molecule genes is selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.

~~36~~
~~38~~

31

(currently amended) The method according to Claim ~~33~~, wherein said one or more informative nucleic acid molecule genes is selected from the group consisting of the genes in Figures 1A-1U.

(Claims 39-70 (canceled))

~~37~~
~~41~~

(currently amended) A method of identifying an upper intestinal polyp or a colonic polyp comprising the step steps of:

- a) obtaining a nucleic acid sample derived from intestinal tissue; and
- b) determining an a gene expression profile, from an a gene expression product in a nucleic acid sample derived from intestinal tissue, of at least one informative nucleic acid molecule gene having increased expression in an upper intestinal polyp or a colonic polyp relative to a control, wherein said informative nucleic acid molecule gene is selected from the group consisting of the nucleic acid molecules genes in Figures 1A-1U,

wherein increased expression of said nucleic acid molecule gene in said sample is indicative of an upper intestinal polyp or a colonic polyp.

~~38~~
~~42~~

(currently amended) A method of identifying an upper intestinal polyp or a colonic polyp comprising the step steps of:

- a) obtaining a polypeptide sample derived from intestinal tissue; and

09/016,179

-8-

- b) determining an a-gene expression profile, from an a-gene expression product in a polypeptide sample derived from intestinal tissue, of at least one informative nucleic acid molecule gene having increased expression in an upper intestinal polyp or a colonic polyp relative to a control, wherein said informative nucleic acid molecule gene is selected from the group consisting of the nucleic acid molecules genes in Figures 1A-1U, and wherein said gene expression product is a polypeptide;

wherein increased expression of said nucleic acid molecule gene expression product in said sample is indicative of an upper intestinal polyp or a colonic polyp.

Claims 73-74 (not entered)

39/
76.

(new) A method of identifying an intestinal polyp comprising the step of:

- a) determining an expression profile, from expression products in a nucleic acid sample derived from upper intestinal tissue or colonic tissue, of at least three informative nucleic acid molecules having increased expression in an intestinal polyp relative to a control,

wherein increased expression of said nucleic acid molecules in said sample is indicative of an intestinal polyp.

40/
76.

(new) The method according to Claim ³⁹75, wherein the intestinal polyp is an upper intestinal polyp or a colonic polyp.

41/
77.

(new) The method according to Claim ³⁹75, wherein the expression products are DNA.

42/
78.

(new) The method according to Claim ³⁹75, wherein the expression products are mRNA.

43/
79.

(new) The method according to Claim ⁴¹77, wherein the expression profile is determined utilizing specific hybridization probes.

09/916,179

-9-

~~44~~
~~80.~~

42

(new) The method according to Claim ~~78~~, wherein the expression profile is determined utilizing specific hybridization probes.

~~45~~
~~81.~~

43

(new) The method according to Claim ~~79~~, wherein the expression profile is determined utilizing oligonucleotide microarrays.

~~46~~
~~82.~~

44

(new) The method according to Claim ~~80~~, wherein the expression profile is determined using oligonucleotide microarrays.

~~47~~
~~83.~~

39

(new) The method according to Claim ~~78~~, wherein the expression products are polypeptides.

~~48~~
~~84.~~

47

(new) The method according to Claim ~~82~~, wherein the expression profile is determined utilizing antibodies.

~~49~~
~~85.~~

39

(new) The method according to Claim ~~78~~, wherein said informative nucleic acid molecules are selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.

~~50~~
~~86.~~

39

(new) The method according to Claim ~~78~~, wherein said informative nucleic acid molecules are selected from the group consisting of the nucleic acid molecules in Figures 1A-1U.

~~51~~
~~87.~~

(new) A method of identifying an intestinal polyp comprising the step of:

- a) determining an expression profile, from expression products in a polypeptide sample derived from upper intestinal tissue or colonic tissue, of at least three informative nucleic acid molecules having increased expression in an intestinal polyp relative to a control,

09/916,179

-10-

wherein increased expression of said nucleic acid molecules in said sample is indicative of an intestinal polyp.

52
~~88.~~

51

(new) The method according to Claim ~~87~~, wherein the intestinal polyp is an upper intestinal polyp or a colonic polyp.

53
~~89.~~

51

(new) The method according to Claim ~~87~~, wherein the expression profile is determined utilizing antibodies.

54
~~90.~~

51

(new) The method according to Claim ~~87~~, wherein said informative nucleic acid molecules are selected from the group consisting of apoptosis genes, cell cycle genes, tumor suppressor genes, cell adhesion genes, transcription related genes, and inflammation genes.

55
~~91.~~

51

(new) The method according to Claim ~~87~~, wherein said informative nucleic acid molecules are selected from the group consisting of the nucleic acid molecules in Figures 1A-1U.